

# Niklas Doyle

Phoenix, AZ | ndoyle1313@gmail.com | github.com/NiklasDoyle

## SUMMARY

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Enthusiastic full stack software developer specializing in building microservices and batch processing flows. Looking for a challenging and impactful position that will help me grow as an engineer and expand my domain knowledge of the airline industry.

## SKILLS

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**Programming Languages:** Python, Java, JavaScript, TypeScript, Swift, Bash, C#

**Frameworks:** FastAPI, React, SpringBoot, GitHub Actions, Express, Spotify Backstage, .NET

**Technologies:** Maven, Gradle, Azure, AWS, IBM Cloud, Argo CD, Kubernetes, RabbitMQ, Terraform, Git, pandas

**Certificates:** Azure Fundamentals

## WORK EXPERIENCE

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### AMERICAN AIRLINES

Tempe, AZ

#### Associate Developer – Revenue Management

June 2024 – Present

- Worked closely with an operation research business unit to maintain and improve a **Python** forecasting application, leveraging a **Celery Task Queue** and **TensorFlow** to predict upcoming flight demand, enabling the company to optimize revenue
- Maintained and enhanced data preprocessing flows using of **Java SpringBoot**, **Bash** scripts, and **Tivoli Workload Scheduler**, improving the resiliency and data quality of nightly batch runs
- Developed a **Python** application to report batch availability, improving the team's resiliency metric collection process while working with other internal teams to better comply with company standards
- Prototyped an improved **REST** backend service using **FastAPI** and **MongoDB** to transform and serve data to a business-facing application, replacing and simplifying our existing system and leading to a great reduction in technical debt
- Enhanced several **Java SpringBoot** and **Swift** applications to enable employee travel on the American Airlines iOS application

#### Associate Developer – Developer Experience

June 2023 – June 2024

- Maintained a developer portal using **Spotify's Backstage** with **React**, **Typescript**, and several **FastAPI** microservices, enabling efficient code production, monitoring, and upkeep across the company
- Contributed to an open-source **Backstage** plugin used by **70+ company** to simplify their **Kubernetes** continuous deployment
- Automated the quarterly audits of **100+** repositories using **Python** and the **GitHub API**, saving developers **40 hours** quarterly by increasing efficiency and reducing manual workload, while also improving the resiliency of applications
- Enhanced **CI/CD** pipelines using **GitHub Actions**, enabling our team to deploy to production **30-40 times weekly**, improving deployment efficiency and reducing downtime
- Engaged in **pair programming** to collaborate on coding tasks, enhancing code quality, and facilitate knowledge sharing

### GENERAL DYNAMICS MISSION SYSTEMS

Tempe, AZ

#### Software Engineering Intern

May 2022 – January 2023

- Transformed a **GIS** desktop solution into a progressive web application using **.NET Blazor**, resulting in enhanced user accessibility and scalability as well as improved maintainability.
- Designed frontend using **HTML**, **CSS**, **TypeScript**, and **ArcGIS API**, achieving a responsive and intuitive map interface

## PROJECTS

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### NUDGE iOS APPLICATION

June 2022 – January 2025

- Developed an **iOS Application** that selects music depending on physiological metrics using apple's **WatchOS**, **SwiftUI**, **Firebase**, and **SpotifyAPI** to accurately select motivating music during a workout
- Onboarded and managed **10** total graduated design and engineering master's students to redesign and refactor the application, facilitating weekly standup meeting following an **Agile** development cycle

## ACHEIVMENTS

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#### Internal Conference Speaker

April 2024

- Wrote, rehearsed, and delivered a presentation with other teammates to an audience of **300+** employees about the importance of developer experience in the company

## EDUCATION

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Arizona State University, Barrett, The Honors College

Tempe, AZ

B.S. in Computer Science, Music Entrepreneurship Certificate

Summa Cum Laude